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## N THE UNITED STATES PATENT AND TRADEMARK OFFICE

AND HOUSE

Gibong Jeong

Docket No:

TI-33192

Serial No:

10/052,993

Conf. No:

1296

Examiner:

TBD

Art Unit:

2631

Filed:

11/02/2001

For:

METHOD AND APPARATUS FOR ESTIMATING AND CORRECTING GAIN AND PHASE

IMBALANCE IN A CODE DIVISION MULTIPLE ACCESS SYSTEM

HECEIVED

PRELIMINARY AMENDMENT

**Technology Center 260**c

Assistant Commissioner for Patents

Washington, DC 20231

MAILING CERTIFICATE UNDER 37 C.F.R. § 1.8(a)

I hereby certify that the above correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail in an envelope addressed to Assistant Commissioner for Patents Washington, DC 20231 on April 16, 2002

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Dear Sir:

Prior to examination of the above-identified application, Applicant respectfully submits the following amendments and remarks.

## IN THE SPECIFICATION

Please replace the paragraph beginning at page 12, line 16, with the following rewritten paragraph:

--In an actual implementation of the correction block as shown in FIG. 2, the common gain part can be omitted and the sinusoid can be generated by a look-up table 202. Look-up table 202 can reside in a Read-Only Memory (ROM) or other storage device. The gain and phase correction circuit 104 includes first 120 and second 122 input ports, and four multipliers 202-208 and two adders 210-212. A storage device such as a read-only memory (ROM) 202 has four output ports 214, 216, 218, 220 that provide the correct sinusoid to the respective multipliers 202, 204, 206 and 208, responsive to receiving the estimate signal for the gain 222 and phase 224 imbalance. The corrected I signal 124 is provided on a first output port, while the corrected Q signal 126 is provided in a second ouput port.--





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**REMARKS** 

**Technology Center 2600** 

The paragraph beginning at line 16 of page 15 has been amended to correct for a spelling error and to make it consistent with the drawing shown in FIG. 2. No new matter has been added.

In light of the above, it is respectfully submitted that the present application is in condition for allowance, and notice to that effect is respectfully requested.

While it is believed that the instant amendment places the application in condition for allowance, should the Examiner have any further comments or suggestions, it is respectfully requested that the Examiner contact the undersigned in order to expeditiously resolve any outstanding issues.

Attached hereto is a marked up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version with Markings to Show Changes Made."

To the extent necessary, Applicant petitions for an Extension of Time under 37 CFR 1.136. Please charge any fees in connection with the filing of this paper, including extension of time fees, to the deposit account of Texas Instruments Incorporated, Account No. 20-0668.

Respectfully submitted,

Pedro P. Hernandez Attorney for Applicant

Reg. No. 35,190

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## Version with Markings to Show Changes Made

Paragraph beginning at line 16 of page 12 has been amended as follows:

In an actual implementation of the correction block as shown in FIG. 2, the common gain part can be omitted and the sinusoid can be generated by a look-up table 202. Look-up table 202 can reside in a Read-Only Memory (ROM) or other storage device. The gain and phase correction circuit 104 [inclues] includes first 120 and second 122 input ports, and [six] four multipliers [202-212] 202-208 and two adders 210-212. A storage device such as a read-only memory (ROM) 202 has four output ports 214, 216, 218, 220 that provide the correct sinusoid to the respective multipliers 202, 204, 206 and 208, responsive to receiving the estimate signal for the gain 222 and phase 224 imbalance. The corrected I signal 124 is provided on a first output port, while the corrected Q signal 126 is provided in a second ouput port.